THE NATURE AND MANAGEMENT OF FUNCTIONAL GASTRIC DISORDERS.

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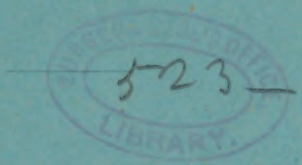

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IT is said that things are known when understood and understood when interpreted. Concerning the familiar symptom-complex embraced under the term functional gastric disturbances there is much lack of agreement in interpretation, and, therefore, it is concluded that there exists disagreement as to the nature of the pathology in question.

A recent American writer has arrayed these symptoms to explain them as the result of subacute gastritis. One Continental observer attributes the phenomena to an on-coming gastrectasis, and another easily divides the group into a series of special stomach-diseases in which hyperchlorhydria stands forth prominently. Ewald, Rosenheim, and Boas separate the disturbances into irritative forms and depressive forms, and then assign to each abnormalities in motion, secretion or sensation.

Unquestionably there is functional disturbance of the organ in subacute gastritis, and the same holds true of beginning gastrectasis; also there are types that are sufficiently distinct to admit of their

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description as varieties, and an analysis of these varieties, after the fashion of Ewald and others, leads to a clearer understanding of the nature of gastric neuroses; and yet it would appear as though the subject were open to still another interpretation of which in part it is the purpose of this brief paper to speak.

In the first place, let it be said that the functional gastric disorder is very rarely a primary trouble. In reviewing the records of a series, including between five hundred and six hundred cases of supposed stomach-disease, in which at least one complete examination of the gastric contents was made, in not one instance can it be said that functional trouble indubitably arose from a disturbance that was primarily gastric.

This is not impeaching the possibility of such occurrence. It can be readily seen how overtaxing the stomach alone might eventually induce exhaustion and a consequent seated neurosis. Indeed, perhaps nothing is more important, as a contributing factor, than gluttony; but in point of fact one rarely finds gluttony the essential cause of the neurosis. Something has gone before, or something accompanies the pernicious habit of over-indulgence, and as a joint result we discover the neurosis. It is remarkable that the stomach will tolerate patiently so many insults of a dietetic character, both in food and in drink. True, a subacute gastritis may result, but under a diminished appetite it soon subsides, and no functional disorder follows.

Of course, this statement may be met by quoting the freely-admitted fact that it is the everyday

experience for physicians to have patients complain of persistent gastric symptoms resulting from injudicious eating. Quite true. A failing gastric function is usually first made manifest by the overtaxing of that function; but even if overtaxed, that function rarely, if ever, remains weak and perverted from the effect of the indiscretion alone. On the contrary, a healthy organism, after a short period of reaction, congestion—if you please, of subacute gastritis—resumes its customary pace. (Note Beaumont's oft-mentioned observations on St. Martin.)

What, then, are the influences that invite the appearance of the persistent functional disorders of the stomach? The question is one that should arise in the physician's mind with every case that is presented. This paper is intended as a protest that the question is not more frequently raised.

In ratio to one's ability to hunt down and remove the causal factor will be his success in relieving the neurosis, failure in which has come to be an opprobrium. The stomach, like a mirror, reflects pretty nearly every influence to which the organism is subjected. Irritation of the brain, the cord, the testicle, the uterus, the kidney, or the liver, results in anorexia, or perhaps vomiting. Grief, joy, worry, and pain, lead to similar results. When there is toxemia from constipation, or renal or cutaneous insufficiency, or the infections, it is the stomach that raises the alarm. In the cerebral anemia of naupathia, or of a fainting turn, and in the cerebral congestion of sunstroke, the gastric are in the tumultuous front of the anarchistic functions.

One need not go far for explanation of these phe-

nomena. Perhaps no portion of the organism has so complex a sympathetic nerve-supply as the stomach. Robert Ewald's extraordinary exposition of this truth, in his brother's masterly book on diseases of the stomach, is entitled to mention on all occasions. Just why Nature has provided this curious arrangement it would be interesting, but at this time extraneous, to discuss. Enough to say that it exists. Now, of those suffering from these various irritations, any of which, either through toxemia or reflex disturbances, may lead to the gastric symptoms, and if the stomach-contents were examined there would be found no evidence of subacute gastritis, none of the "ropy mucus" that inexperienced men so much talk and write about, and which those who have largely studied gastric contents usually fail to discover; but there would be found testimony that there had occurred a serious derangement in gastric innervation, exhibiting itself to some extent as excitement, to some extent as depression, and in some instances it is impracticable to say that either of these states predominates.

An attempt at the segregation or the classification of these gastric phenomena appears to me as usually inexpedient, if not unsuccessful. They are mixed symptoms resulting from remote disturbances. Undoubtedly a stomach having such faulty and spasmodic innervation would now resent bad diet, or perhaps any other kind of diet, and yet the trouble is not one primarily of the stomach. It is not that the face of the mirror is irregular, but it is because of the distorted figures reflected from it that the picture is hideous.

If these statements are facts, and if they be applied as guides in traversing the maze of functional disorders of the stomach, it would seem as though they would help us to rightly understand the real nature of those affections.

Let any case of undoubted functional gastric disease be put under examination. There may be eructations of gas or sour fluid (that means insufficiency of the cardia, as a rule); there may be an excess of free HCl (that means a faulty inhibition of the peptic glands, probably); there may be uneasiness amounting to gastralgia (that means undue irritation or hyperesthesia, one or both). Now, instead of resting content with this diagnosis, admirable and advanced though it may be, and making for himself limitation in therapeutics that are directed toward immediate relief and really nothing else, no matter how successfully they are applied, the physician is asked to look further, having before him the conviction that there is operating an unthought-of cause that has diverted nervous energy from its ordinary courses and is the present malefactor.

Where will the trouble be found? In the search it is convenient to examine for the possible presence of: *First*, some centric or eccentric nerve-irritation acting reflexly; and, *second*, some toxemia. The nerve-irritation may prove to be some central structural disease or persistent circulatory disturbance, or it may follow excessive mental strain, as seen in actors, school-teachers, and those suffering constant interruptions, or it may be, and in fact often is, accounted for by defects in the organs of special sense, particularly the eyes.

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One cannot be unmindful of the doubts that this last statement may arouse in the minds of listeners who have given the question of eye-strain large attention, for it is well-known that observers differ widely as to the importance of ocular defects in the development of functional disorders. I have no contention to make, but a faithful record of personal experience to report.

To leave for the present the matter of the brain and its nerves, it will be found that irritation of the cord, either directly, as from pressure in lordosis, scoliosis, and other sources, or interference with innervation, as in tabes or focal myelitis, or indirectly, as in irritation from hysterical spine, is a common source of gastric disorder.

Further than this, the mischief may be lurking in the genito-urinary apparatus. Not alone the uterus and ovaries, but the urethra, the meatus, and the prepuce should be critically examined. A frequent and generally overlooked cause of the disturbance exists in ureteritis, to which attention has been especially directed by Dr. Howard Kelly and by Dr. Matthew D. Mann. Wandering and movable kidney and renal irritation from hyperlithuria belong to the list. It is not intended to catalogue all the known reflex causes of functional disturbance, as the subject is too trite, and perhaps the array is already redundant.

There now remains to be considered the influence of toxemia in the production of gastric disturbances. One of the most common and most important forms results from defects of the kidneys, either dependent upon nephritis or upon functional inade-

quacy of the organs, a subject fully discussed by Sir Andrew Clark, Casper A. Peyer, and others abroad, and by Rochester and Allen Jones in this country. So alcohol, tobacco, coffee, and other substances may induce digestive disturbance indirectly through the blood and nervous system. Malaria, gout, and tuberculosis often offend in the same manner.

Not to be prolix, there is another potent, and, it is believed, hitherto an undescribed cause of functional gastric disorder doubtless operating through the medium of the blood. Reference is had to the very late phases of syphilis. The patients usually give a history of an ancient infection, with presumably the usual routine of medication. In several there is a history of healthy children. As a rule, there is an absence of the ordinary tertiary lesions, although the skin is usually muddy, and in some there exists a moderate anemia. In the series already mentioned, representing over five hundred cases in which the stomach was minutely studied, there were twelve whose gastric symptoms depended upon late syphilitic toxemia. Only one of these, a gentleman residing in this city, improved upon ordinary treatment. Fully one-half failed to improve after such treatment was faithfully tried, but all of them made immediate, prompt, and lasting improvement when given ascending doses of potassium iodid, and with one exception all have been discharged on no other than syphilitic treatment, the other measures having been abandoned. It is interesting to note that in these cases there occurred but little disturbance in secretion. The complaint was of sensory and motor symptoms—gas-eructa-

tions, nausea, distress after eating, and frequently more or less gastralgia. This account has been somewhat amplified, because the conclusions are believed to be new.

In reviewing the multitudinous causes of functional gastric disorders it would be interesting to analyze with a view of determining whether or not given irritations, particular reflexes, and special forms of toxemia produce uniform and distinct varieties of gastric neuroses. So far as this matter has been studied the answer must be in the main no. However, there is ground for believing that in a few instances with a pronounced given reflex irritation there will probably result functional failure along certain lines. An example may be given, but as a preliminary the belief should be stated that long-continued functional perversion leads invariably to structural change.

Now as to the example:

Your distinguished fellow, Dr. Max Einhorn, in 1893 first described, under the title "Achylia Gastrica," a most important condition of the stomach, that was later described by Dr. Allen Jones as "Gastric Anacidity." Now, of the cases reported by the latter, together with several others included in the series already mentioned, the majority have been examined as to the existence of eye-strain. Without a single exception in the cases thus investigated there has been found to exist a definite, and relatively speaking, uniform ocular defect, viz.: unsymmetrical astigmatism of high degree, varying from one to five diopters. It should be noted that there was an absence of the slight astigmatic faults,

such as are reported to be responsible for so much headache. Also, that the present ametropia was irregular, such as myopia in one eye and hyperopia in the other, besides a lack of correspondence in the axes of astigmatism. Obviously no claim is made that these ocular defects are generally followed by "Achylia Gastrica;" but it is true that in every case of this form of gastric trouble in which an eye-examination was made ametropia of the forms described was found present.

Letting repose the eye-question and asking a moment's attention to the stomach-disease under consideration, the opinion is ventured that in "Achylia Gastrica" we have to do with an affection that in the beginning is often a mere functional disturbance. The long-continued inhibition of the peptic glands is succeeded by atrophy, and what is at first an amenable condition terminates in structural change and is persistent. The history of the patient is not one of acute or chronic gastritis, but one of long and troublesome functional derangement. These cases have been followed through the very transitional stages and, as it were, taken *in flagrante delicto*. Here seems to be evidence of the truth of the assertion that long-continued functional disturbance leads to change in structure.

The etiology of most cases of gastrectasis is involved in the history of functional insufficiency. Many believe that peptic ulcer has often a neuropathic origin. It is highly probable, then, that sometimes, as a result of functional disturbance, chronic gastritis may be established. The successful management of functional disorders of the

stomach, therefore, includes not only an intelligent special treatment of this condition and correction of the diet, as indicated by the precise study of the stomach and its contents, but also the discovery and removal of the cause, and that cause is frequently remote from the organ in question.

To recapitulate it is held that:

1. Functional gastric disorders generally arise from influences outside the stomach.

2. Those causes are usually to be found in some reflex irritation or some toxemia.

3. Amongst the latter syphilis occasionally has a place that apparently has passed unnoticed.

4. Structural changes in the stomach are not so much the causes as they are the results of functional disorders.

5. The successful treatment of these affections must include the removal of the often unsuspected exciting cause.